Professionalize the Personal: Online Professional Identity Using Impression Management Among Junior Employees

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How do junior employees use different online impression management techniques to construct their online professional identities? And how is their online personal identity reconstructed on social media platforms? This exploratory research argues that there are overlapping, intersecting, and dominating spaces between the personal and the professional, where social media platforms are not neutral stages of self-performance as much as they are powerful tools, alongside other dominant organizational structures, for continuously reconstructing multiple selves. Inspired by Goffman's theoretical framework of the formation of social selves and the notion of impression management of 'selfpresentation', this research intends to better understand how junior employees manage their online impressions and 'professionalize' their social media content for different workrelated reasons and how their digital personal identity intersects with their professional identity. In-depth interviews with 30 junior employees from various working fields revealed three key impression management techniques: anonymize/de-anonymize identities, self-surveillance, and sacrifice the personal. This research extends and deepens our understanding of Goffman's framework of how online impression management techniques are employed, either willingly or unwillingly, to construct our online professional identity.

Keywords: online professional identity, social media, online impression management, Goffman, junior employees

In modern society, social media communication plays an important role in shaping our professional identity (Guraya, Guraya, & Yusoff, 2021; Kasperiuniene & Zydziunaite, 2019); however, scholarly research on the intersection of social media and work remains underdeveloped (Bagger, 2021). Nowadays, both employees and employers are increasingly using social media for various work-related purposes. For example, online platforms, such as cybervetting, are now integrated into the employment process, with

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literature indicating a paradigm shift in traditional recruitment methodologies with the widespread adoption of cybervetting (Jacobson & Gruzd, 2020). Little research has focused on how the intersection, intervention, and overlap between social media platforms and work affect employees' professional lives and careers from the employees' perspective (Bagger, 2021).

Scholars agree that social media opens new opportunities for employees to introduce themselves and their professions but also raises challenges. On one hand, social media prompts individuals to construct their online identities, negotiate and verify identity claims, and, most importantly, enact multiple identities (Stets & Serpe, 2016). Online platforms facilitate the exposure and visibility of our professional skills, education, knowledge, and experiences, helping to build our professional identity (Duffy & Chan, 2019). On the other hand, scholars argue that information about us gathered online by recruiters is often unrelated to the nature of the job. As a result, this information could lead to exclusion, discrimination, and the hiring of incompetent people due to inaccurate judgments based on the massive amount of available content online (Jeske & Shultz, 2016). Extant literature discusses the intersection between cybervetting and online surveillance (Manokha, 2018), where people's actual identities are obscured by the shadow of their online personas. People find themselves needing to change and modify their online past, present, and future to be compatible with the requirements of the new digital social contract. Thomas, Briggs, Hart, and Kerrigan (2017) found that higher education systems adopt the concepts of self-branding and self-marketing, where young adults are taught to use social media as a self-marketing tool to formalize and professionalize themselves. However, little is known about the tradeoffs or the bargains that individuals may offer, or be forced to scarify, to fit the professional framework.

Notably, while previous studies have widely examined identity construction for professionals and high-level employees, the professional identity construction of junior employees and students requires further exploration (Liao, Xie, Ou, Yang, & Zou, 2023). Extant literature reveals that junior employees, as an underrepresented population (Russmann & Hess, 2020), are often less advantaged, more vulnerable, and less powerful. They strive to accumulate organizational social capital and social acceptance, or what is called a 'self-promoter's paradox' (Holoien & Fiske, 2013). The younger generation seeks to deploy professional platforms to present and brand themselves in their skills, education, knowledge, and experiences (Duffy & Chan, 2019). Extant literature explores the role of self-disclosure among junior or lower-status employees who would likely benefit more from perceptions of their professionalism.

Moreover, scholars have found that newly employed graduates practice the "adjusted self" during their transition, since each phase of their journey has its own rules for professional identity. Candidates feel compelled to act in their online personas to gain social acceptance because managers sometimes scan and screen applicants—including reviewing their social media presence—before making any employment offers. This includes determining whether an applicant is a good fit for a particular role (Bagger, 2021; Jacobson & Gruzd, 2020). Therefore, this research is interested in junior employees who are relatively new to constructing their online professional identities while striving to accumulate more organizational social capital and social acceptance.

The literature shows how the online environment constitutes a new form of social contract that compels users to engage in self-monitoring and self-discipline using tools that may seem gentle (Marwick, Fontaine, &

Boyd, 2017). Dennis (2008) describes this *self-surveillance* as "individualized resistance and protection from a society that is more reliant on surveillance" (p. 347). However, little is known about how self-monitoring or self-surveilling is practiced online to construct an online professional identity. Therefore, this research aims to explore how junior employees are subject to self-surveillance and structural surveillance and to investigate the online impression techniques they use or learn to construct and possibly protect their professional identities.

The context of this research is specific at different levels. In the Palestinian context, institutional surveillance is manifested as layered, intersecting, and simultaneous surveillance, including social media companies, the colonial Israeli occupation, the authoritarian Palestinian government, the workplaces, and familial or societal networks, which play as multiple mechanisms of surveillance and censorship operate simultaneously overlaying Palestinian speech (Nazzal, 2020; Nazzal, Stringfellow, & Maclean, 2023). In Palestine, the literature has raised concerns about hyper-surveillance techniques (Nazzal, 2020; Taha, 2020). Therefore, the uniqueness of the context shapes our understanding of how highly surveilled contexts can affect communication issues related to employability and professional lives.

Inspired by Goffman's (1959) dramaturgical perspective and his work *The Presentation of Self in Everyday Life*, this research uses the Goffmanian theoretical lens to view people as actors who have two stages: backstage and front-stage personas with distinctive behaviors (Aspling, 2011; Bullingham & Vasconcelos, 2013). Goffman (1959) highlighted the term "impression management" to refer to how individuals control their behavior and the details they choose to give and to give off (Hogan, 2010). Recently, Goffman's work has been used in social media studies. For example, Bullingham and Vasconcelos (2013) highlighted how individuals, rather than adopting entirely new digital personas, seek to recreate their offline selves in the online sphere while still engaging in selective editing of selves (Bullingham & Vasconcelos, 2013).

This ability to wisely manage and modify one's online identity offers significant potential to deepen our understanding of the Goffman framework (Bullingham & Vasconcelos, 2013). Social media platforms have become a space to manage one's self-presentation, as users carefully manage their images and present idealized versions of themselves using 'impression management' techniques (Choi, Williams, & Kim, 2020).

This article addresses a twofold question: How do junior employees manage their online impressions and "professionalize" their social media content in different ways, and how do their personal digital identities intersect with their professional identities? This article is situated within a growing strand of online professional identity and impression management. In what follows, this article discusses online professional identity through the Goffmanian theoretical lens, bringing related literature to the fore. The article then discusses the methods used to collect data from 30 participants, after which the findings are presented. The article concludes with a discussion focusing on the three different impression management techniques used by junior employees and highlighting the implications of online self-surveillance and impression management research.

Online Professional Identity

Professional identity is not a fixed or stable construction (Echeverri & Åkesson, 2018; Liao et al., 2023). It is when an individual presents his/her professional self in all manners, beliefs, values, behaviors, attributes, and experiences (Ferraro & Smith, 2011; Ibarra, 1999) to fit within a particular organizational

discipline (McGivern, Currie, Ferlie, Fitzgerald, & Waring, 2015). The construction of professional identities is manifested in the acquisition of qualifications, training, and achievements through a social integration process. Professionalism establishes social identities and contributes to advancing one's career prospects (McGivern et al., 2015).

Jordan (2020) argued that online identity changes from one platform to another and that each platform is used for a purpose. For example, Terras, Ramsay, and Boyle (2015) highlighted that using LinkedIn is frequently necessary for securing employment. The need for a LinkedIn profile is linked to a modern professional identity formed in response to a shift away from traditional work settings. This new form of professional identity is based on the premise that individuals may define their personal careers by employing branding techniques similar to those used by large organizations, which is self-promotion (Novakovich, Miah, & Shaw, 2017).

As social media has become crucial in professional paths and careers, recruiters and employers are increasingly using social media across various employment stages: recruitment (pre-employment), screening and monitoring during employment, and even termination. There are several incidents where job applicants were not hired or employees were fired because of content discovered on their social media accounts by employers. A study by Kruse, Norris, and Flinchum (2018) revealed that social media platforms are spaces where behavior is restricted due to monitoring by others, such as family, friends, employers, and governmental bodies. Institutional surveillance is typically described as measures implemented by corporations or governments to gain control over individuals (Lyon, 2003). For example, Langan (2018) found that public employees may be held accountable and considered unprofessional for engaging in political content, sometimes leading to termination over a Facebook post or tweet.

In the Palestinian context, the literature has raised concerns over hyper-surveillance techniques (Nazzal, 2020; Taha, 2020) that violate Palestinians' digital rights through Instagram (Raydan, 2022), Facebook (Koslov, 2019), and YouTube (Nazzal, 2020). These discriminatory practices and biased collaborations with social media corporations to remove, censor, or block Palestinian content led to an 800% increase in the number of content takedown requests submitted by the Cyber Unit until 2022 (Siegal, 2022). For example, in 2022, Israel arrested 410 Palestinians for social media activity under the claim of incitement to violence and terror (Middle East Monitor, 2023). However, does a highly politicized context, such as that of Palestine, affect work and online professional spaces? This research is interested in exploring how Palestinian junior employees construct their online professional identities within a highly politicized context. It intends to explore how these layered surveillance techniques intersect with the construction of Palestinian juniors' online professional identities and how they practice and manage different online impressions to create, maintain, and maybe protect their professional job construct.

Reconstructing the Online-Self: A Goffmanian Perspective

Erving Goffman, a sociologist and social psychologist, enriches our understanding with his dramaturgical perspective of front and backstage human behaviors. His contribution to the field of sociology, particularly in understanding social interactions and behaviors both in person and online, is significant (Aspling, 2011). In his influential work *The presentation of self in everyday life*, Goffman (1959) illustrates how individuals are presented as actors who have two personalities—the backstage and frontstage—which

are similar to the social behaviors of these actors in their public or private lives (Aspling, 2011; Bullingham & Vasconcelos, 2013). In the front stage mode, the actor masks his/her real personality and presents a performance with the character needed for the setting. According to Goffman (1959), individuals, concerned with how people see them, present the perfect picture of "self-idealism," always conscious of being watched (Walther, 2007). Through his notion of "impression management," Goffman theorizes that individuals control their behavior and the details they choose to present and conceal (Hogan, 2010). This involves a strategic game of managing information, including hiding certain details to effectively portray a character (Aspling, 2011). However, in the backstage mode, there is no performance, as the audience is absent, according to Goffman (Bullingham & Vasconcelos, 2013).

Goffman's (1959) dramaturgical perspective has inspired researchers in social media and Internet studies, leading to new contributions in the field (Bullingham & Vasconcelos, 2013; Ditchfield, 2020; Merunková & Šlerka, 2019). Goffmanian metaphors of the "front" and "back" stages are not the only notions of online interactions. For example, Merunková and Šlerka (2019) point out how online impressions on social media platforms, such as "liking" a particular page or sharing someone's posts, contribute to the construction of a self-representative image. Bullingham and Vasconcelos (2013) highlight how individuals, rather than adopting entirely new personas, seek to recreate their offline selves in the online sphere while still engaging in the selective editing of selves. Ditchfield (2020) highlighted actors' ability to engage in the "pre-post editing" stage, allowing individuals to wisely edit, change, or restart an interaction before sharing it with their proposed audience. This stage could be a "rehearsal stage," which allows users to prepare and structure their self-presentations (Goffman, 1974). This phase is significant because it enables users to present a more filtered image. Quinn and Papacharissi (2018) found that the asynchronous nature of online platforms imposes a time gap between content generation and reception, allowing users to edit their communications to present a desired image.

Methodology, Data, and Analysis

This study explores how junior employees employ different impression management techniques to construct their online professional identities and how the personal online content is reshaped to construct a professional identity. To achieve this, this study adopts an interpretivist approach to understanding various online impression management practices, including participants' motivations, meanings, feelings, and narratives, as well as their diverse work and personal experiences. It uses an exploratory qualitative research design, collecting data through in-depth interviews. All participants are Palestinians who have different lived experiences related to various working environments, networks, international exposure, political activism, and engagement in the Palestinian social, cultural, and political settings. In total, 30 interviews were conducted with participants aged 21 to 26, with an average age of 24 years. The participants were junior employees with less than five years of working experience, working or having worked in various sectors, including private companies, telecommunications, banking, family businesses, freelancing, charities, INGOs, local NGOs, and the Palestinian public sector, such as governmental bodies and municipalities (see Table 1).

All interviews were conducted in Arabic by the author, who is familiar with the research field and its political and socio-economic contexts. The interviews lasted from 50 to 90 minutes, and all were audio-recorded and transcribed after the interview. Interviewing was chosen as the primary method because it

facilitates collecting the breadth and depth of information called for by the complexity of the topic at hand. The researcher guaranteed this by securing access to key informants. Interviewing allows researchers to understand respondents' feelings, values, meanings, interpretations, fears, concerns, and personal experiences that may be difficult to reach in other ways (Patton, 1990). Purposive and snowballing sampling techniques were used to select the needed sample. These techniques proved effective in enabling the researcher to select suitable participants with diverse characteristics and backgrounds to achieve the research objectives.

Before the interview, participants were asked to sign a consent form specifying data protection issues and assuring them of anonymity through pseudonyms. Having thoroughly reviewed relevant streams of literature, the researcher identified sensitizing concepts to guide the interview protocol for researching Palestinian junior employees. These concepts were explored and refined, particularly during the initial interviews, considering the participants' positions and the various logics that might explain their statements. On concluding the interviews, the researcher posed several questions concerning participants' experience at the interview, whether there were additional questions that might have been asked, and whether they could refer further eligible contacts. Interviews were semi-structured with room for flexibility, allowing conversations to digress and allowing the researcher to probe participants' experiences and perspectives in their internal reality.

Participants were asked about their online personas, social media activities, digital content, and experiences with different social media platforms, such as Facebook, Instagram, Twitter, LinkedIn, and TikTok. Participants shared how they classify their different platforms for different purposes and how each platform speaks to a different self that they inhabit. Lengthy discussions were had with participants about the intersection and overlapping spaces between their multiple selves offline and online, and how they construct their online personas and professional identities by using and managing various online impression techniques. Participants were also asked to share their thoughts on what a professional identity means to them, how it is constructed online, its purpose, and the associated costs or trade-offs. The participants enriched the article's findings by discussing how they felt surveilled by different parties, such as managers, colleagues, work networks, recruiters, and even familial and relative ties. Participants also shared and explained their different impression management techniques and tactics to professionalize their online content and digital personas, apart from listing their academic certificates or training. They discussed how anonymization, self-surveillance, and scarifying some personal identity construction among junior employees in Palestine.

Thematic analysis was used to analyze the interview data (Braun & Clarke, 2006). All transcripts were translated from Arabic into English by the researcher who, given her familiarity with the research context, began the process of open coding and translating meanings, in the participants' own words, from the interviews. The data were then read and reviewed by the researcher, who is Palestinian engaged in the Palestinian political and socioeconomic context. The author engaged in a type of pattern recognition in which recurrent themes were identified and turned into categories for analysis (as per Fereday & Muir-Cochrane, 2006). The researcher read the first transcript and collaborated to generate initial codes based on text portions that reflected concepts or ideas referred to by the participants. The second transcript was then read and coded using the codes generated

from the first transcript alongside new ones based on constructs not yet encountered in the previous transcript. The codes were then divided into themes, categorizing overarching themes that were examined for internal and external heterogeneity (as per Patton, 1990) to verify that data within themes were meaningfully correlated and that there were clear and identifiable distinctions between them.

Name	Gender	Age	Working sectors since graduation	Used social media Platforms
Lana	Female	22	Private sector	Instagram
			INGO	Facebook
				LinkedIn
				Twitter
				TikTok
Hussam	Male	26	Food Manufacturing Company	Instagram
				Facebook
				LinkedIn
Anas	Male	24	Delivery Company	Instagram
				Facebook
Mira	Female	26	Banking sector	Instagram
				Facebook
				TikTok
Eman	Female	25	Advertising agency	Instagram
			Freelancer	Facebook
				LinkedIn
Dina	Female	24	Marketing agency	Instagram
			Family business	Facebook
				TikTok
Areen	Female	23	Restaurant	Instagram
			Private Company	Facebook
				LinkedIn
				Twitter
Luna	Female	21	INGO	Instagram
				Facebook
				LinkedIn
				TikTok
Lama	Female	22	Governmental Ministry	Instagram
			Freelance	Facebook
				LinkedIn
Adam	Male	26	Community institution	Instagram
				Facebook
				LinkedIn
				TikTok
Reem	Female	24	Banking sector	Instagram

				Facebook
				LinkedIn
Mousa	Male	22	Local NGO	Instagram
				Facebook
				LinkedIn
Sarah	Female	26	Private sector	Instagram
				Facebook
				TikTok
Noor	Female	22	Private sector	Instagram
			Family business	Facebook
				LinkedIn
Yasmin	Female	24	International organization	Instagram
			Private company	Facebook
				LinkedIn
				Twitter
				TikTok
Maram	Female	25	Private sector	Instagram
				Facebook
				Twitter
Razan	Female	25	Private sector	Instagram
				Facebook
				LinkedIn
Radi	Male	22	Family business	Instagram
			Freelance	Facebook
				LinkedIn
Salem	Male	24	Banking sector	Instagram
			Family business	Facebook
Rita	Female	25	Digital marketing freelancer	Instagram
				Facebook
				LinkedIn
				TikTok
Salam	Female	26	Banking sector	Instagram
				Facebook
				LinkedIn
Kareem	Male	26	Entrepreneur and freelancer	Instagram
				Facebook
				LinkedIn
				TikTok
Jad	Male	22	INGO	Instagram
				Facebook
Julia	Female	21	INGO	Instagram
				Facebook

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Ahmed	Male	22	INGO	Instagram
Anmed	Male	22	INGO	Facebook
				LinkedIn
				TikTok
Khaled	Male	23	Private retailing company	Instagram
				Facebook
				LinkedIn
Taima	Female	23	INGO	Instagram
				Facebook
Basel	Male	23	Family business	Instagram
				Facebook
				LinkedIn
				TikTok
Hana	Female	25	Telecommunication company	Instagram
			Private sector	Facebook
				LinkedIn
				TikTok
Rama	Female	26	Telecommunication company	Instagram
				Facebook
				LinkedIn
				TikTok

Anonymize/De-Anonymize Multiple Identities

In communication studies, professional identity construction research focuses on the multiple roles of the constantly changing self. The findings reveal how the participants' online identities change from one platform to another, with each platform serving a specific purpose (Jordan, 2020). This involves anonymizing or de-anonymizing different identities through various online management techniques. Lana, a 22-year-old junior communication advisor at an international development cooperation, explains the purposes of various social media platforms, as well as when and why she decides to go anonymous:

I am very active on Twitter but I don't use my real name and I use it to speak about politics and environmental issues which are less entertainment-oriented and more activist-oriented . . . I feel it could jeopardize my opportunities in higher education and employability. LinkedIn is purely for professional work and updates to track my career development. I use TikTok when I want to be more in touch with my less serious, let's say sillier side, I use it more for entertainment purposes.

Lana's comment corresponds with previous studies explaining how changes in the roles that professionals play in social media lead to a "context collapse" (Vitak, Blasiola, Patil, & Litt, 2015). This breakdown signifies the emergence of multiple social media personas, each with unique standards for professional behavior in the workplace (Kasperiuniene & Zydziunaite, 2019). Participants' narratives reveal how anonymization as an online impression technique helps them construct an online professional identity

by hiding *the* personal and restricting some colleagues and managers from their social media accounts, especially on Instagram. Mira, a 26-year-old who used to work at a bank, shares the following:

I worked in a Palestinian bank for eleven months and as a new employee I was trying to build relationships and get to know employees around me to socialize. One day, I was chatting with a group of employees in the Bank and there was this guy who barely spoke with anyone or even with me, and after one hour or so he followed me on Instagram and sent me a message saying 'it was nice speaking with you' I was really surprised . . . I didn't accept his following request and he kept reminding me to accept his request almost every day at work.

Moreover, the findings reveal that restricting personal digital content from some colleagues has to do with their need to be socially accepted at their different work sites. Noor, a 22-year-old employee, elaborated on how her digital content might exclude her from other colleagues:

I love to keep my social media platforms more private and away from the workplace. People here [referring to Palestine] are curious and love to gossip about the way you dress up, where do you go, what do you daily do . . . I know for sure that many of my colleagues do gossip about me because I am different, like "she parties every weekend and drinks alcohol," or "she lives by herself" . . . they want to stalk on you, to gossip and envy you.

Noor's comment, along with other accounts, highlights the cultural and social constraints imposed by Palestinian society. The data collected are inconsistent with Hargittai and Marwick's (2016) discussion about the *privacy paradox*, where "young people claim to care about privacy while simultaneously providing a great deal of personal information through social media" (p. 3737), as participants, particularly women, reveal high privacy deal and concerns. From a masculine perspective, Adam, a 26-year-old who enjoys an untraditional and outgoing lifestyle, shares similar thoughts to Noor:

I work with a youth community institution as a coordinator of a large-base number of volunteers where I deliver many workshops for Palestinian youths from different cities and cultures. For example, when I go to Hebron [referring to it as a conservative city] and speak with youth there, they add me on Instagram immediately . . . I know that they have typical images of how a man should behave in our society, and this could lead them to build a negative perception about me because I am not restricting myself to our norms and traditions that much, which could affect our professional relationship at work.

However, Razan, a 25-year-old junior employee who works in a private sector company, explained with discomfort how online identity anonymization is impossible and how online impression techniques are not fully controlled by users:

I usually hide my stories from anyone who ever worked with me. I remember one day I randomly met someone and she said something like "Oh we heard that you are going to travel" or "your dog is cute" which means that they actually know that I hide them but still stalking on me from someone's else account.

Moreover, other participants shared how they modify and strategize their anonymization process differently by de-anonymizing their online self and content. The findings correspond with Vitak et al. (2015) about how users navigate carefully "to reap relational benefits while ensuring content is not shared with unintended audiences" (p. 1485). Rita, a 25-year-old junior freelancer, illustrates:

I know that our country and work community is too small where I would never use my full name on social media, only on LinkedIn to be approached by employers, but not on other platforms. So my tactic on social media is that I use my initials and the name of my father instead my last name, that would make it more difficult to be found on social media as I am aware that recruiters stalk on the people who want to hire.

Moreover, some participants' findings show how junior employees in low-ranked work positions and less secure job statuses use their personal content to connect. Rama, a 26-year-old junior employee who works in a telecommunications company, shares the following:

Maybe it is easy to ignore your colleagues' requests on social media but one day I was surprised that my supervisor added me, and honestly I didn't like that he approached me on Facebook at all, but forcibly I accepted his request as I want to stay in good terms with him but I did put him under the restricted list on Facebook, hopefully he won't discover this anytime soon [laughs].

Julia, a 21-year-old employee who works in an international NGO, adds:

I worked on a six-month project at a very-well known NGO and I was very keen to stay as the work environment was great, and I knew for sure that my manager has to know me more to help me getting accepted for another project, but I barely see her as she is a very busy woman. I activated my Facebook to contact her, then I got to know that both of her girls go to the same school which I used to go to for nine years . . . this mutual thing which was only discovered through Facebook opened many conversations between us about the school, the teachers, etc. . . . she even once asked me to recommend a private teacher to teach her daughter physics . . . our relationship got stronger, and yes Facebook helps [happy voice].

Moreover, Khaled, a 23-year-old junior who works in a private retailing company, explained:

When I have high workload projects that require online communication with my colleagues, I find myself dealing with my colleagues in a less professional way and more personal. For example, sometimes I send them memes, jokes, silly videos on WhatsApp to break the ice, or I would go out with them and talk about personal things outside the professional work stuff.

According to previous studies, people in social networks often blend their personal and professional identities, making it difficult to distinguish between their public and private roles. The finding corresponds

with Ditchfield's (2020) analysis of the participants' ability to engage in the 'pre-post editing' stage, which allows them to strategize what to hide and what to reveal before sharing it with their proposed audience. The data collected highlight how some participants share the importance of anonymizing the personal to stay professional and socially accepted in work settings, while others reveal how their professional and personal identities intersect and how de-anonymizing the personal by choice helps them establish networks and bring job opportunities.

Self-Surveillance Technique

The findings reveal how and why participants practice self-surveillance as an online impression tactic to construct or maintain the professional identity they desire or to align with the professional identity their organizations request and impose. Kareem, a 26-year-old entrepreneur and freelancer who freely expresses himself on Instagram and Facebook, shares how he started self-monitoring and even disciplining himself:

I used to post all of my everyday activities on social media, especially Instagram. I know that many of my content is not socially accepted, but I used not to care . . . I used to dye my hair purple and pink and wear what so ever I want, I am keen to express myself and different orientation and thoughts loudly, but when I started my entrepreneurial business, I changed a bit, maybe more than a bit as my online profile is linked with my business account . . . I started dealing with clients who should accept me as a person to work with, so yes I've changed . . . the funky me is wearing a black shirt as you can see now [sarcastic voice].

Sarah, a 26-year-old junior employee who works in the private sector, shares a similar selfmonitoring technique that leaves her unsatisfied:

When I was working in the private sector, I felt that I should be selective when I expressed my opinions, especially on progressive issues whether it was related to the LGPT, feminism, etc. The workplace environment was divergent, so I felt that I would be criticized if I expressed certain things, which was reflected in my clothing style, I was trying not to be fully self-expressive because I knew that I will deal with clients from the private sector who have a stereotypical idea about professionalism.

From a gender perspective, the forthcoming comment of Dina, alongside other comments shared by female participants, reveals how digital surveillance (Duffy & Chan, 2019) obligated them as women to change and discipline the way they behaved and dressed. Dina, a 24-year-old junior employee who currently works in a family business, shares the following:

There was no dress code at work, but there was a lot of gossip. I started adjusting my clothing style so they take me seriously. Another part is my hair, since a very young age, I feel that my hair is my self-expression and I used to trim, cut and do whatever I want with it, but since I started working I started to leave it longer after graduation because I was keen to appear more serious.

Nazzal et al. (2023) analyzed how Palestinian women face different forms of oppression every day, such as the colonial Israeli occupation and the authoritarian Palestinian government, in addition to the patriarchy that is manifested in workplaces, family, and societal networks. Odeh (2018) articulates it as the "surveillance tower" where Palestinian women resist the social surveillance of family, friends, and coworkers. Our findings correspond with recent research indicating that in honor cultures, such as Pakistan (Pramiyanti, Miller, Caldwell, & Kurniawan, 2022) and Azerbaijan (Aksar, Firdaus, & Pasha, 2022), women develop online impression management strategies to overcome strict and multi-layered surveillance.

Reem, a 24-year-old junior who works in a bank, illustrates how she started depoliticizing her digital content:

At work, we have many WhatsApp groups and they are all seen as official platforms for work. I remember once our manager told us that it is considered as a bad sign if we do not respond to WhatsApp because it is official. But one day, one of the employees criticized the politics of the Palestinian Authority on one of the groups, as he criticized how they violated the protesters after Israel bombed a hospital in Gaza. Immediately our Chief Technology Officer who is the group admin deleted his message and accused him that his message might lead to a civil war [Sarcastic voice].

Reem elaborates:

At the end, it's all political and the bank is keen to protect its relationships and connections with the Palestinian Authority. I think if one of the employees at the Bank says something bad about the authorities it would be seen that this is also the Bank's politics, which they won't accept as it goes against their political and economic affairs, this is how things work in our country [sad voice].

Palestinians face widespread digital rights violations by the authoritarian Palestinian Authority in the West Bank and the de facto government of Hamas on the Gaza Strip (Human Rights Watch, 2018). New laws and legislation were introduced by the Palestinian state to reinforce control and surveillance over social media accounts, producing a "digital occupation" sphere (Thompson, Stringfellow, Maclean, & Nazzal, 2021), where mass surveillance and punitive actions were practiced by social media companies, Israeli occupation, and authoritarian regimes over Palestinian social media accounts.

Moreover, some participants highlighted how international agendas and the politics of some international NGOs in Palestine influence the surveillance of employees' political content. Ahmed, a 22-year-old junior who works at an international NGO, mentions how social media censorship is practiced by the INGO he works at:

We had a workshop about social media censorship at the international NGO which I work in . . . they asked us not to mention the institution name on our social media platforms where we share the political or sensitive content as they refer to it. This thing was hugely criticized by the employees but also was understood. Taima, a 23-year-old junior employee who works in an international NGO, shares her fears about social media censorship:

I have quit my job because top management asked the employees to sign an official paper that censors our social media accounts and what we post. They do not want us to share any political content. So based on this paper, they would fire me on anything I post if it does not suit them [surprised voice].

The data collected show how constructing and maintaining a professional identity is sometimes imposed by the organization's politics and international work affiliations, as junior employees are forced to depoliticize their digital content and personas to *look* professional.

Sacrifice the Personal

Participants' accounts reveal how the construction of their online professional identity is manifested in the invasion and scarifying of their personal and comfort zone, and how the visibility of their digital content has facilitated this invasion of privacy. Mousa, a 22-year-old junior employee who has been working at a local NGO for a year, discusses how employees sacrifice their personal time to look or sound professional:

I had many WhatsApp workgroups and this annoyed me because I lost my private time, therefore I decided once not to respond after 4:00 pm [official leaving time]. Later I noticed that no one else is doing this, they [some other employees] were active on WhatsApp all the time, which was stressing them. They used to complain to me that they cannot separate their work from their private life. They think about work at weekends, even during their dreams.

Mousa's comment, alongside other accounts, corresponds with Schrock's (2015) theorization of "the affordance of locatability" (p. 1235), to which mobile media communication has exposed users to locational identity and surveillance by managers.

Previously, this article discussed how digital monitoring and surveillance obligated some junior employees, particularly females, to change and discipline the way they behave and dress. More surprisingly, some participants shared how the visibility of their personal digital content by colleagues and managers facilitated work bullying. Anas narrates:

I traveled once to Athens and it seems that my trip photos were circulated among some colleagues because when I went back to my office, I used to get comments like "Oh you were pampered with those cute yellow shorts," or "I saw you wearing a cut top with a picture of an actor on it, I love this one." I used to receive a lot of nasty comments and bullying but it used to be communicated in a different way.

Eman, a 25-year-old employee who has worked at an advertising agency for two years but has been working as a freelancer model for more than five years, shares:

When I got the job I started hearing comments from my colleagues like "we've just seen a sponsored post of you," "look our model came," or "look our model left," or compliments like "whatever you wear looks good on you" it was annoying.

The data collected correspond with Hargittai and Marwick's (2016) discussion of *networked privacy*, where "in highly networked social settings, the ability of individuals to control the spread of their personal information is compromised by both technological and social violations of privacy" (p. 3752). In correspondence with the notion of *network privacy*, Hana narrates:

In 2021 I had a plastic surgery for my nose but I didn't tell anyone at work, even my manager, as I consider this a private issue. I asked my manager for a two-week sick leave and he was okay back then. But when he knew from other employees who had me on Instagram that I had a plastic surgery it become a significant point of discussion and aggressive argument as well. When I came back to work, I realized that he had a problem that I didn't tell him that it was a nose plastic surgery and that I don't trust him.

Unfortunately, the findings reveal how the usage of social media channels by organizations and companies and the exposure of the employees' digital content facilitate harassment by clients and the wider community.

Salam, a 27-year-old female junior employee who has experienced violated work experience, shares:

All of my clients were outside of the country where I used to deal with clients from different nationalities and cultures. The Bank was okay sharing my personal number with some important VIP clients who need special service and attention. Once, I had a client of those big VIPs . . . he started contacting me on daily basis even if got nothing to do with work, then the sound of chat became as if he was flirting with me. The real problem was that many VIP clients after they knew my name from True Caller they reached me on Facebook, Instagram, and it was literally a nightmare.

Discussion and Conclusion

This article explores how junior employees use key impression management techniques, such as anonymizing and de-anonymizing specific digital identities, self-surveilling digital content to fit organizational professional frameworks, and scarifying personal identity to construct the 'required' professional organizational identity. Extant literature discusses how impression management could be used for 'self-promotion' by sharing academic achievements, skills, abilities, and accomplishments (Fang, Ji, Qi, & Zhang, 2021). However, this research reveals the implicit, hidden, and imposed online impression techniques that users, willingly or unwillingly, use within a unique political, economic, and social setting, such as Palestine.

First, this research extends the agentic understanding of Goffman's (1959) framework by bringing on board a structuralist analysis to reveal how dominant structures play crucial roles in shaping our online impression tactics—a theoretical limitation in Goffman's work that needs to be addressed. Goffman believes in an agentic-individualistic ability, where actors can willingly control their behavior and the details they choose to give and to give off in his notion of "impression management" (Hogan, 2010), which, as Lunt (2020) expresses, is also a self-regulating behavior. Goffman suggests that actors unconditionally play a game of managing information, hiding certain details to effectively portray a character (Aspling, 2011) or freely engaging in the 'pre-post editing' stage, which allows them to wisely edit, change, or restart an interaction before sharing it with their proposed audience. However, recent studies conducted in non-Western contexts that use Goffman's theory warn us to pay attention to the cultural rules and political structures in specific contexts that largely limit one's ability to express, engage, and present (Aksar et al., 2022; Bardhan, 2022). The usage of Goffman's theoretical framework in non-Western contexts has expanded the theory's applicability and provided more refined contributions. For example, Bardhan (2022) found that patriarchal norms in the Arab world restrict the political potential of young women Instagrammers and activists from Egypt and Tunisia, as they are expected to maintain honor by remaining mastura (hidden and low profile).

Other scholars have highlighted the role of religion as a social structure in producing digital surveillance of women. A recent study shows how Pakistani women's offline persona contradicts their online self-presentation, as their online experiences are characterized in terms of a "digital veil" and "digital sanctuary" (Aksar et al., 2022). Pramiyanti et al. (2022) found that young Indonesian women negotiated appropriate or inappropriate digital behavior on Instagram, including issues related to dress code, hairstyle, and identity expression. The latter findings are aligned with this article's findings about how the political settings, conservatism, and patriarchy in Palestine are manifested in workplaces and familial and societal networks, producing what Odeh (2018) articulates as the 'surveillance tower' upon Palestinian women. Therefore, this article elaborates on Goffman's theory by analyzing and intersecting with diverse dominant structures, such as political, social, and religious structures, to expand our understanding of how individuals in non-Western contexts, such as the Global South or the Arab World, develop online impression management strategies to overcome strict and multilayered surveillance. This will also expand our understanding of how organizational and personal communication differ in specific contexts.

Second, this article contributes to the literature on organizational communication and interpersonal communication scholarship in violent and highly politicized contexts. This article further highlights the importance of including political authoritarianism, political extremism, or occupation in future analysis, as they limit one's ability to freely manage or control online self-representation and interpersonal communication. Therefore, this article calls for a political reflexive stance within Goffman's (1959) framework in settings experiencing political turbulence to grasp individuals' heterogeneous narratives and expand the applicability of Goffman's theory in different contexts.

Third, this article contributes to the literature on hyper-surveilled contexts where a culture of fear, self-monitoring, or self-surveilling across online platforms is witnessed. Therefore, taken-for-granted assumptions within Goffman's (1959) work that simply believe that actors do enjoy self-regulatory behavior should be revisited, as more theoretical contributions are going to be explored once we start reflecting on the dynamics of organizational communication within organizations and institutions in hyper-surveilled and honor cultures.

Fourth, this article's findings correspond with extant literature that junior employees, as an underrepresented population (Russmann & Hess, 2020), are less advantaged, more vulnerable, and less powerful people who strive to accumulate more organizational social capital and social acceptance, or what is called "self-promoter's paradox" (Holoien & Fiske, 2013). Extant literature explores the role of self-disclosure among junior or lower-status employees who would likely benefit more from perceptions of their professionalism. For example, in their study of academics' e-mail signatures, Harmon-Jones, Schmeichel, and Harmon-Jones (2009) found that professors with fewer citations included more professional itiles in their e-mail signatures, which enabled them to create a clear image of their professional identity.

These behaviors are reminiscent of the idea of the self-promoter's paradox, whereby those with lower status (or lower possession of some positive attribute) feel a greater need to self-promote, whereas those who have the greatest amount of the relevant positive trait are often the least likely to promote it, as their possession of the trait is often self-evident (Holoien & Fiske, 2013).

However, this article challenges the concepts of self-disclosure and self-promoter's paradox, as structures do limit and reshape our online impressions. The findings reveal how participants de-anonymize or self-surveil their online presence in fear of societal norms and patriarchy and sometimes de-politicize their online content in fear of organizational/political surveillance. Therefore, self-disclosure or self-promoting is not an easy tactic to employ in a highly politicized, hyper-surveilled, and conservative context.

The findings are contextual, given that the researcher draws on interviews solely with junior Palestinians. This is a limitation of the study, which also presents avenues for further research in other locales. This study contributes a novel perspective to the growing area of social media research in organizational communication and interpersonal communication scholarship in work settings to better understand how communication can be threatened and surveilled on organizational and personal levels in highly politicized, hyper-surveilled, and conservative settings. Digital ethnography (Thompson et al., 2021), as an innovative methodological tool for researching vulnerable and marginalized populations, could be used in future research.

References

Aksar, I. A., Firdaus, A., & Pasha, S. A. (2022). Virtual vs. real self: Gendered presentation and everyday performance of virtual selfhood—A case study of Pakistan. *Journal of Communication Inquiry*, 47(1), 84–114. doi:10.1177/01968599221089236

- Aspling, F. (2011). *The private and the public in online presentations of the self: A critical development of Goffman's dramaturgical perspective* (Unpublished master's thesis). Stockholms Universitet, Stockholm, Sweden.
- Bagger, C. (2021). Social media and work: A framework of eight intersections. *International Journal of Communication*, *15*, 2027–2046.
- Bardhan, S. (2022). #Egyptiangirl and #Tunisiangirl: The (micro)politics of self-presentation on Instagram. *International Journal of Communication*, *16*, 681–699.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. doi:10.1191/1478088706qp063oa
- Bullingham, L., & Vasconcelos, A. C. (2013). The presentation of self in the online world: Goffman and the study of online identities. *Journal of Information Science*, 39(1), 101–112. doi:10.1177/0165551512470051
- Choi, S., Williams, D., & Kim, H. (2020). A snap of your true self: How self-presentation and temporal affordance influence self-concept on social media. *New Media & Society*, 1–22. doi:10.1177/1461444820977199
- Dennis, K. (2008). Keeping a close watch–The rise of self-surveillance and the threat of digital exposure. *The Sociological Review*, 56(3), 347–357. doi:10.1111/j.1467-954X.2008.00793.x
- Ditchfield, H. (2020). Behind the screen of Facebook: Identity construction in the rehearsal stage of online interaction. *New Media & Society*, *22*(6), 927–943. doi:10.1177/1461444819873644
- Duffy, B. E., & Chan, N. K. (2019). You never really know who's looking: Imagined surveillance across social media platforms. *New Media & Society*, 21(1), 119–138. doi:10.1177/1461444818791318
- Echeverri, P., & Åkesson, M. (2018). Professional identity in service work: Why front-line employees do what they do. *Journal of Service Theory and Practice, 28*(3), 315–335. doi:10.1108/JSTP-11-2016-0212
- Fang, Z., Ji, X., Qi, X., & Zhang, J. (2021). Analysis on online impression management of Chinese teenagers. Procedia Computer Science, 187, 170–175. doi:10.1016/j.procs.2021.04.048
- Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International Journal of Qualitative Methods*, 5(1), 80–92. doi:10.1177/16094069060050

- Ferraro, H., & Smith, D. (2011). Professional identity construction: Using narrative to understand the negotiation of professional and stigmatized cultural identities. *Human Relations*, 64(1), 85–107. doi:10.1177/0018726710384290
- Goffman, E. (1959). *The presentation of self in everyday life*. New York, NY: Bantam Doubleday Dell Publishing Group.
- Goffman, E. (1974). *Frame analysis: An essay on the organization of experience*. Cambridge, MA: Harvard University Press.
- Guraya, S. S., Guraya, S. Y., & Yusoff, M. S. B. (2021). Preserving professional identities, behaviors, and values in digital professionalism using social networking sites: A systematic review. *BMC Medical Education*, 21(381), 1–12. doi:10.1186/s12909-021-02802-9
- Hargittai, E., & Marwick, A. (2016). "What can I really do?" Explaining the privacy paradox with online apathy. *International Journal of Communication*, 10, 3737–3757.
- Harmon-Jones, C., Schmeichel, B. J., & Harmon-Jones, E. (2009). Symbolic self-completion in academia: Evidence from department web pages and email signature files. *European Journal of Social Psychology*, 39(2), 311–316. doi:10.1002/ejsp.541
- Hogan, B. (2010). The presentation of self in the age of social media: Distinguishing performances and exhibitions online. *Bulletin of Science, Technology & Society, 30*(6), 377–386. doi:10.1177/0270467610385893
- Holoien, D. S., & Fiske, S. T. (2013). Downplaying positive impressions: Compensation between warmth and competence in impression management. *Journal of Experimental Social Psychology*, 49(1), 33–41. doi:10.1016/j.jesp.2012.09.001
- Human Rights Watch. (2018, October 23). *Palestine: Authorities crush dissent.* Retrieved from https://www.hrw.org/news/2018/10/23/palestine-authorities-crush-dissent
- Ibarra, H. (1999). Provisional selves: Experimenting with image and identity in professional adaptation. *Administrative Science Quarterly*, 44(4), 764–791. doi:10.2307/2667055
- Jacobson, J., & Gruzd, A. (2020). Cybervetting job applicants on social media: The new normal? *Ethics* and Information Technology, 22, 175–195. doi:10.1007/s10676-020-09526-2
- Jeske, D., & Shultz, K. S. (2016). Using social media content for screening in recruitment and selection: Pros and cons. *Work, Employment and Society, 30*(3), 535–546. doi:10.1177/0950017015613746

- Jordan, K. (2020). Imagined audiences, acceptable identity fragments and merging the personal and professional: How academic online identity is expressed through different social media platforms. *Learning, Media and Technology, 45*(2), 165–178. doi:10.1080/17439884.2020.1707222
- Kasperiuniene, J., & Zydziunaite, V. (2019). A Systematic literature review on professional identity construction in social media. SAGE Open, 9(1), 1–11. doi:10.1177/2158244019828847
- Koslov, S. (2019). Incitement and the geopolitical influence of Facebook content moderation. *Georgetown Law Tech Review*, 4, 183. Retrieved from https://georgetownlawtechreview.org/incitement-and-the-geopolitical-influence-of-facebook-content-moderation/GLTR-01-2020/
- Kruse, L. M., Norris, D. R., & Flinchum, J. R. (2018). Social media as a public sphere? Politics on social media. *The Sociological Quarterly*, 59(1), 62–84. doi:10.1080/00380253.2017.1383143
- Langan, F. E. (2018). Likes and retweets can't save your job: Public employee privacy, free speech, and social media. *University of St. Thomas Law Journal*, 15(1), 228.
- Liao, K. C., Ajjawi, R., Peng, C. H., Jenq, C. C., & Monrouxe, L. V. (2023). Striving to thrive or striving to survive: Professional identity constructions of medical trainees in clinical assessment activities. *Medical Education*, 57(11),1102–1116. doi:10.1111/medu.15152
- Lunt, P. (2020). Beyond Bourdieu: The interactionist foundations of media practice theory. *International Journal of Communication*, *14*, 2946–2963.
- Lyon, D. (2003). *Surveillance as social sorting: Privacy, risk, and digital discrimination*. London, UK: Routledge.
- Manokha, I. (2018). Surveillance, panopticism, and self-discipline in the digital age. *Surveillance* & *Society*, *16*(2), 219–237. doi:10.24908/ss.v16i2.8346
- Marwick, A., Fontaine, C., & boyd, d. (2017). "Nobody sees it, nobody gets mad": Social media, privacy, and personal responsibility among low-SES youth. *Social Media* + *Society*, 3(2), 1–14. doi:10.1177/2056305117710455
- McGivern, G., Currie, G., Ferlie, E., Fitzgerald, L., & Waring, J. (2015). Hybrid manager–professionals' identity work: The maintenance and hybridization of medical professionalism in managerial contexts. *Public Administration*, 93(2), 412–432. doi:10.1111/padm.12119
- Merunková, L., & Šlerka, J. (2019). Goffman's theory as a framework for analysis of self-presentation on online social networks. *Masaryk University Journal of Law and Technology*, 13(2), 243–276. doi:10.5817/MUJLT2019-2-5

- Middle East Monitor. (2023, January 5). *Israel arrested 410 Palestinians for social media activity in 2022, report says*. Middle East Monitor. Retrieved from https://www.middleeastmonitor.com
- Nazzal, A. (2020). YouTube's violation of Palestinian digital rights: What needs to be done. Al-Shabaka. Retrieved from https://al-shabaka.org/briefs/youtubes-violation-of-palestinian-digital-rightswhat-needs-to-be-done/
- Nazzal, A., Stringfellow, L., & Maclean, M. (2023). Webs of oppression: An intersectional analysis of inequalities facing women activists in Palestine. *Human Relations*, 77(2), 265–295. doi:10.1177/00187267221144904
- Novakovich, J., Miah, S., & Shaw, S. (2017). Designing curriculum to shape professional social media skills and identity in virtual communities of practice. *Computers & Education, 104*, 65–90. doi:10.1016/j.compedu.2016.11.002
- Odeh, S. (2018, November). A violent network: Gender-based violence against Palestinian women in virtual space | Association for Progressive Communications. The Arab Center for the Advancement of Social Media. Retrieved from https://7amleh.org/wpcontent/uploads/2018/11/Report_GBV_-_KtK.pdf
- Patton, M. Q. (1990). *Qualitative evaluation and research methods*. Newbury Park, CA: SAGE Publications, Inc.
- Pramiyanti, A., Miller, E., Caldwell, G., & Kurniawan, E. (2022). Young Muslim women's negotiation of authenticity on Instagram. *International Journal of Communication, 16*, 935–957.
- Quinn, K., & Papacharissi, Z. (2018). Our networked selves: Personal connection and relational maintenance in social media use. In J. Burgess, A. Marwick, & T. Poell (Eds.), *The SAGE handbook of social media* (pp. 353–371). London, UK: SAGE.
- Raydan, R. (2022, June 9). How pro-Palestinian censorship has exposed Instagram's bias. The New Arab. Retrieved from https://www.newarab.com/features/how-pro-palestinian-censorship-hasexposed-instagrams-bias
- Russmann, U., & Hess, A. (2020). News consumption and trust in online and social media: An in-depth qualitative study of young adults in Austria. *International Journal of Communication, 14*(18), 3184–3201.
- Schrock, A. R. (2015). Communicative affordances of mobile media: Portability, availability, locatability, and multimediality. *International Journal of Communication*, *9*, 1229–1246.
- Siegal, T. (2022, April 14). Cyber unit reports 800% increase in online terror incitement amid recent attacks. *Times of Israel*. Retrieved from https://www.timesofisrael.com/cyber-unit-reports-800increase-in-online-terror-incitement-amid- recent-attacks/

- Stets, J. E., & Serpe, R. T. (2016). *New directions in identity theory and research*. New York, NY: Oxford University Press.
- Taha, S. (2020). The cyber occupation of Palestine: Suppressing digital activism and shrinking the virtual sphere. *Global Campus of Human Rights*, 1–12. doi:10.25330/523
- Terras, M. M., Ramsay, J., & Boyle, E. A. (2015). Digital media production and identity: Insights from a psychological perspective. *E-Learning and Digital Media*, 12(2), 128–146. doi:10.1177/2042753014568179
- Thomas, L., Briggs, P., Hart, A., & Kerrigan, F. (2017). Understanding social media and identity work in young people transitioning to university. *Computers in Human Behavior*, 76, 541–553. doi:10.1016/j.chb.2017.08.021
- Thompson, A. J., Stringfellow, L., Maclean, M., & Nazzal, A. (2021). Ethical considerations and challenges for using digital ethnography to research vulnerable populations. *Journal of Business Research*, 124, 676–683. doi:10.1016/j.jbusres.2020.02.025
- Vitak, J., Blasiola, S., Patil, S., & Litt, E. (2015). Balancing audience and privacy tensions on social network sites. *International Journal of Communication*, *9*, 1485–1504.
- Walther, J. B. (2007). Selective self-presentation in computer-mediated communication: Hyperpersonal dimensions of technology, language, and cognition. *Computers in Human Behavior*, 23(5), 2538– 2557. doi:10.1016/j.chb.2006.05.002